



CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date:

Date: January 26, 2006 Name: John C. Freeman, Esq.

Signature:

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& LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: WOLFGANG HOLZAPFEL et al.Appln. No.: 10/635,422Filed: August 6, 2003For: INTERFERENTIAL POSITION
MEASURING ARRANGEMENTAttorney Docket No: 56/415Examiner: Anderson,
Denise Brown

Art Unit: 2877

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL

Sir:

Attached is/are:

- ☒ Supplemental Information Disclosure Statement, PTO Form 1449, Three (3) Cited References, Copy of Search Report Re: EP Appln. No. 03016538.
- ☒ Return Receipt Postcard

Fee calculation:

- ☒ No additional fee is required.
- ☐ Small Entity.
- ☐ An extension fee in an amount of \$_____ for a _____-month extension of time under 37 C.F.R. § 1.136(a).
- ☐ A petition or processing fee in an amount of \$_____ under 37 C.F.R. § 1.17(_____).
- ☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	or	Rate	Add'l Fee
Total		Minus				x \$25=			x \$50=	
Indep.		Minus				x 100=			x \$200=	
First Presentation of Multiple Dep. Claim						+\$180=			+ \$360=	
						Total	\$		Total	\$

Fee payment:

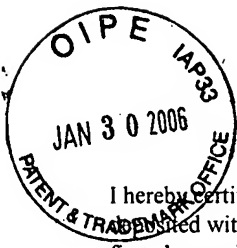
- ☐ A check in the amount of \$_____ is enclosed.
- ☐ Please charge Deposit Account No. 23-1925 in the amount of \$_____. A copy of this Transmittal is enclosed for this purpose.
- ☐ Payment by credit card in the amount of \$_____ (Form PTO-2038 is attached).
- ☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

John C. Freeman, Esq. (Reg. No. 34,483)

January 26, 2006

Date



IFW

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Commissioner for Patents, P.O. Box 1450, Alexandria, VA
22313-1450 on January 26, 2006.

Name of Registered Representative:

John C. Freeman
John C. Freeman, Reg. No. 34,483

January 26, 2006
Date of Signature

PATENT
CASE NO. 56/415

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:)
)
Wolfgang Holzapfel et al.)
) Group Art Unit: 2877
Serial No.: 10/635,422)
) Examiner: Anderson, Denise Brown
Filed: August 6, 2003)
)
For: INTERFERENTIAL POSITION)
MEASURING ARRANGEMENT)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56 and in
conformance with 37 C.F.R. §§ 1.97-1.98, Applicants hereby submit the following references for
consideration by the Examiner. In particular the requirements of 37 C.F.R. § 1.97(c) have been
satisfied as shown by the attached certification in accordance with 37 C.F.R. § 1.97(e). A copy of
the Willhelm dissertation is not being supplied since it was previously supplied with Applicants'

Information Disclosure Statement filed on November 26, 2003. Copies of all of the other cited references, except the cited U.S. Patents, are enclosed along with a completed copy of Form PTO-1449.

I. DISCLOSURE

A. U.S. Patents

<u>Patent No.</u>	<u>Inventor</u>	<u>Issue Date</u>
5,079,418	Michel et al.	01/07/92
5,430,546	Huber	07/04/95
5,574,558	Kudo et al.	11/12/96
5,760,959	Michel et al.	06/02/98
5,774,219	Matsuura	06/30/98
5,812,320	Maeda	09/22/98
6,005,667	Takamiya et al.	12/21/99
6,907,372 B1	Spanner	06/14/05

B. Foreign Patent References

<u>Reference No.</u>	<u>Country</u>	<u>Publication Date</u>
0 446 691 A2	EP	09/18/91
197 01 941 A1	Germany	07/24/97
1 085 291 A2	EP	03/21/01

C. Literature

1) Jörg Willhelm, "Dreigitterschrittgeber," Dissertation made at Hannover Technical University, 1978, pp. 47-52.

II. DISCUSSION

A. U.S. Patent No. 5,079,418

The '418 patent was cited as an X-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538. An X-type reference is pertinent when taken alone. A Y-type reference is pertinent when combined with one or more other Y-type references.

B. U.S. Patent No. 5,574,558

The '558 patent was cited as a D-type and an A-type reference in a Search Report for corresponding European patent application no. 03 01 6538. An A-type reference provides technical background and is not pertinent to patentability.

C. U.S. Patent No. 5,760,959

The '959 patent was cited as an X-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

D. U.S. Patent No. 5,812,320

The '320 patent was cited as an X-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

E. U.S. Patent No. 6,005,667

The '667 patent was cited as an D-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

F. European Reference No. 0 446 691

Based solely on the drawings and the attached English-language Abstract, the '691 reference is pertinent because it appears to disclose a phase grid that can adjust intensity

properties and phase angles of partial beams diffracted in different orders. It is believed that U.S. Patent No. 5,430,546 corresponds to the '691 reference.

The '691 reference was cited as an D-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

G. German Reference No. 197 01 941

Based solely on the drawings and the attached English language Abstract, the '941 reference is pertinent because it appears to disclose an encoder with a reflection-type scale. It is believed that U.S. Patent No. 5,774,219 corresponds to the '941 reference.

The '941 reference was cited as an X-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

H. European Reference No. 1 085 291

Based solely on the drawings and the attached English language Abstract, the '291 reference is pertinent because it appears to disclose a position scale with graduation divisions and guide error scales arranged perpendicular to the position scale. It is believed that U.S. Patent No. 6,907,372 corresponds to the '291 reference.

The '291 reference was cited as an X-type and a Y-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

I. Willhelm Dissertation

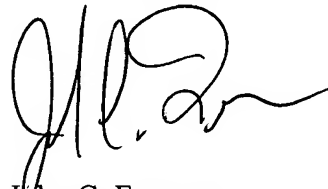
The pertinence of the Willhelm dissertation is discussed in paragraphs 0003 and 0006 of the present application.

The Willhelm Dissertation was cited as an X-type, Y-type and a D-type reference in a Search Report for corresponding European patent application no. 03 01 6538.

III. CONCLUSION

It is believed that none of these references, alone or in combination, disclose or suggest the invention claimed. However, Applicants wish to make it clear that the disclosure of the above references is in no way an admission that they qualify as prior art. It is Applicants' desire, however, to have these references available in the record for both the Examiner and the public to see. Applicants therefore request that the Examiner review the entire disclosure of each reference and make the above-listed references of record.

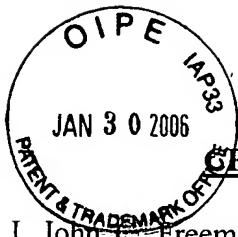
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. C. Freeman', with a stylized, flowing script.

John C. Freeman
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Attorney for Applicants

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Dated: January 26, 2006



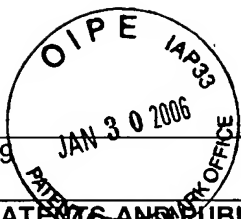
CERTIFICATION UNDER 37 C.F.R. § 1.97(e)(1)

I, John C. Freeman, certify that each item of information contained in the information disclosure statement attached hereto was first cited in a Search Report regarding European Patent Application No. 03 01 6538, which is the European counterpart of United States Patent Application Serial No. 10/635,422. The European Search Report was mailed on December 22, 2005 which is not more than three months prior to the filing of the attached information disclosure statement.

Date: January 26, 2006

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FORM PTO-1449	SERIAL NO. 10/635,422	CASE NO. 56/415
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE August 6, 2003	GROUP ART UNIT 2877
(use several sheets if necessary)		APPLICANT(S): Wolfgang Holzapfel et al.

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	B1	5,079,418	01/07/92	Michel et al.		
	B2	5,430,546	07/04/95	Huber		
	B3	5,574,558	11/12/96	Kudo et al.		
	B4	5,760,959	06/02/98	Michel et al.		
	B5	5,774,219	06/30/98	Matsuura		
	B6	5,812,320	09/22/98	Maeda		
	B7	6,005,667	12/21/99	Takamiya et al.		
	B8	6,907,372 B1	06/14/05	Spanner		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
	B9	0 446 691 A2	09/18/91	EP		Yes
	B10	197 01 941 A1	07/24/97	Germany		Yes
	B11	1 085 291 A2	03/21/01	EP		Yes

EXAMINER INITIAL	OTHER ART – NON PATENT LITERATURE DOCUMENTS <small>(Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.)</small>	
	B12	Jörg Willhelm, "Dreigitterschrittgeber," Dissertation made at Hannover Technical University, 1978, pp. 47-52.

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.